

REDACTED VERSION

**IN THE UNITED STATES COURT OF FEDERAL CLAIMS
BID PROTEST**

BLUE ORIGIN FEDERATION, LLC,

)

Plaintiff,

)

v.

)

THE UNITED STATES,

)

No. 21-1695C

(Judge Richard A. Hertling)

Defendant,

)

and

)

SPACE EXPLORATION TECHNOLOGIES
CORP.,

)

Defendant-Intervenor.

)



DECLARATION OF ROBERT D. CABANA

1. I, Robert D. Cabana, Associate Administrator of the National Aeronautics and Space Administration (NASA), make the following declaration in lieu of an affidavit, as permitted by Section 1746 of Title 28 of the United States Code. I am aware that this declaration will be filed with the United States Court of Federal Claims in connection with the bid protest filed by Blue Origin Federation (Blue Origin), LLC, Docket No. 21-1695C. I also understand that this declaration is the equivalent of a statement under oath. This declaration is provided for the limited purpose of describing the harms that NASA would suffer if the permanent injunction requested by Blue Origin is granted. I make this declaration to the best of my knowledge and belief, based on my personal knowledge and information made available to me in my official capacity.

2. I currently serve as NASA's Associate Administrator. In this role, I am responsible for integrating NASA's technical and programmatic elements and for overseeing the agency's

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programs, including the Exploration Systems Development Mission Directorate's Human Landing System (HLS) program.

3. I previously held other senior NASA management roles, including director of NASA's Kennedy Space Center and Stennis Space Center, deputy director of Johnson Space Center, and chief of NASA's Astronaut Office. I joined NASA in 1985, and my spaceflight experience includes four Space Shuttle missions, including two as pilot and two as mission commander. Prior to my NASA career and after graduating from the US Naval Academy, I was a naval flight officer and naval aviator in the United States Marine Corps.

4. HLS is an absolutely critical centerpiece of the agency's Artemis program, which endeavors to return American astronauts to the Moon for the first time in more than fifty years. Through Artemis, the U.S. will go to the Moon in a sustainable way, creating lunar surface architectures that enable the U.S. to stay and learn how to support astronauts in that environment. Artemis will facilitate NASA testing new technologies and learning critical lessons to prepare us for the next phase of human space exploration: a crewed mission to Mars.

5. To be successful, NASA's ambitious Artemis lunar exploration plan depends on the simultaneous development of numerous vehicles and systems in coordination with partners in industry and government across the country and around the globe. Within Artemis, HLS is but one of many programs that must work together simultaneously, both technologically and in terms of careful schedule coordination. In addition, among the many Artemis programs, HLS is on the critical path; the Artemis campaign is reliant on the HLS Program to develop one or more spacecraft that will shuttle astronauts between lunar orbit and the surface of the Moon, and to do so on a schedule that is tightly integrated with the development of the Orion spacecraft that will transport the crew between Earth and lunar orbit, the Space Launch System (SLS) rocket that

[REDACTED]

will launch Orion, the astronauts' spacesuits, various ground systems, and more. While many of these other marquee programs are already at more advanced stages of maturity in terms of development and execution readiness, HLS remains in relative nascency. As a result, further delays to the development and demonstration of an HLS have the potential to create consequences for NASA that metastasize into a significant hindrance or outright inability to meet Artemis objectives on the timeline and budget currently planned.

6. For this reason, a permanent injunction that would preclude the performance of work on the HLS Option A contract with SpaceX would cause severe schedule and financial harm to NASA and the Artemis program. An injunction would force NASA to fundamentally re-plan the HLS acquisition strategy, either by revising and re-issuing the Option A solicitation to address any corrective action directed by the Court, or canceling the Option A procurement altogether and formulating some alternate strategy, such as consolidating the procurement of the initial HLS development and demonstration together with a Lunar Exploration Transportation Services (LETS) procurement. LETS is currently envisioned to yield awarded contracts in 2023.

7. The degree of schedule impact resulting from such re-planning would depend on many factors, but first-order considerations include the following. In addition to the development and demonstration of an initial HLS spacecraft under the Option A procurement at issue in this bid protest, the HLS program is also executing multiple study and risk-reduction contracts under a separate Appendix N procurement that is advancing sustained HLS capabilities, as well as formulating a highly complex multi-billion dollar LETS procurement for HLS recurring services to meet NASA's requirement for annual Artemis missions to the Moon. As such, the finite resources of the HLS procurement team would need to attend to the development and/or execution of three HLS procurements simultaneously, exacerbating what will already be a very

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challenging workload for a finite number of NASA experts, program, and procurement professionals. Accounting for the need to revise the existing Option A solicitation, and a source selection process that could include discussions and negotiations, NASA estimates that the first HLS demonstration mission would be delayed at least eight to twelve months from the originally planned date. If NASA elects to procure HLS exclusively through the LETS procurement, the schedule delay is estimated to be up to twenty-seven months from the originally planned date. Without a developed HLS capability and the crewed demonstration mission procured via Option A, NASA's scheduled plan for execution of the Artemis III (the first human mission to the lunar surface since 1972) will be seriously jeopardized. An Artemis III mission delay, and any subsequent domino effect delays to Artemis IV and beyond, would likely have cascading schedule, cost, and resourcing effects across the entire Artemis program.

8. A schedule delay of this magnitude would also cause substantial financial harm to NASA due to inevitable inefficiencies precipitated by the disruption to the Artemis program. Within the HLS program itself, it is likely to be difficult if not impossible to maintain efficient productivity from a NASA civil servant and support contractor cohort that is subjected to functional re-assignments while a re-planned Option A source selection is undertaken. The labor cost associated with this expert cohort's Option A-related programmatic and engineering functions is on the order of \$120 million per year. Additionally, because of the need to orchestrate the activities of many space system development efforts to enable the first human lunar return mission, delayed delivery of an HLS would yield similar inefficiencies across all the NASA programs that support the overall Artemis program. The labor cost associated with this cohort's Option A-related programmatic and engineering functions is on the order of \$1 billion per year.

9. As NASA leads America's return to the Moon, it seeks to do so in a sustainable and affordable way, maximizing efficiency and value for taxpayers and stakeholders. In service of this objective, the HLS Option A procurement was designed to create public-private partnerships featuring shared risk, competitive pricing, and opportunities for substantial industry investments, termed "corporate contributions" in the solicitation. However, in the event of a permanent injunction of the Option A contract, due to the passage of time, competing priorities, and changing economic realities, NASA may not receive such significant investments from the Option A offerors in future lander procurements. To illustrate this uncertainty, SpaceX [REDACTED]

[REDACTED] and they proposed a firm fixed contract price that was discounted accordingly. Neither SpaceX nor other potential offerors can be counted on indefinitely to direct their private investments toward NASA's goal of exploring the Moon, much less on whatever timeline the Government requires. SpaceX, for example, developed its core Starship architecture independently of NASA requirements, and as explained within its Option A proposal, SpaceX intends to use this spacecraft for a multitude of private commercial ventures, [REDACTED]

[REDACTED]. SpaceX also has short-term plans for Starship to [REDACTED] for commercial purposes. Accordingly, there is a real risk of SpaceX and other potential HLS providers redirecting investments toward private rather than public interests, and in particular, those of NASA. In summary, if there is a permanent injunction and direction to re-execute the Option A procurement, there is no guarantee that NASA would receive HLS proposals containing the same substantial benefits proposed by offerors under the Option A procurement, including billions of dollars in corporate contributions.

10. Finally, the potential harm to Blue Origin if there is no permanent injunction is significantly mitigated by two additional human lunar lander procurement opportunities that NASA has and will make available to U.S. industry. The HLS Appendix N procurement, under which Blue Origin was recently awarded a \$25.6 million contract on September 27, 2021, provides an opportunity for Blue Origin to significantly advance its HLS design and approach. In addition, in 2023, NASA anticipates making at least one multi-billion dollar award under the HLS LETS procurement, which will include significant research and development funding to support the LETS contractor's development and demonstration of a human lunar lander.

I declare under penalty of perjury that, to the best of my knowledge, the foregoing is true and correct.

DATED: October 1, 2021



Robert D. Cabana
Associate Administrator
National Aeronautics and Space Administration